

Vacuum Emulsifying Mixer



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-- Ointment - Cream - Tooth Paste- Gel Manufacturing Plant

Semi solid manufacturing Plants are ideal tools for the pharmaceutical & cosmetic industries for the production of Ointment, Cream, Lotion, Gel, Tooth Paste & emulsions & homogenization.

Fully automatic Ointment, Cream, Tooth Paste , Gel manufacturing plant consisting of

- Pre determined water phase vessel.
- Pre determined oil, wax, petroleum jelly phase vessel.
- Vacuum Homogenizer Mixer vessel.
- Vacuum Pump
- Storage vessel
- Interconnecting pipeline.
- Transfer Pumps (Bump Pump, Lobe Pump & Metering pumps)
- Integrated automatic control panel.



TFZRJ-50

TFZRJ-100

TFZRJ-200

TFZRJ-350

TFZRJ-500

Features :**1.Design compliance with cGMP**

- Integrated Cleaning in Place-CIP.
- Sterilizing In Place-SIP as an Option.

2.Batch Size

- Available model 50 Liter to 3000 Liter working Capacity.

3.Materials

- Product Contact AISI 316L.
- Food Grade silicon rubber for seal.

4.Manufacturing Vacuumize Homogenizer Vessel.

- Jacket for heating & cooling.
- Vacuumize process.
- Vessel Inside Pressure (-1 /+2 Bar)
- Heating Jacket Pressure (-1 /+6 bar)
- Heating by steam or hot water circulation.
- Agitator mixer with self pressure Teflon scrapper.
- Scrapper cleanly working on both side.
- High speed Homogenizer with toothed Rotor – stator type.
- RPM sleeplessly with variable speed drive for agitator & Homogenizer.
- High shear & pressurization of the homogenizer.
- Thus homogenization of high viscosities up to 400.000 mPas.
- Homogenizer mounted on lower position in the centre of vessel.
- Top lid with motorized top lid for lifting & lowering.
- Safety Interlock process with limit switch.
- Connection for Vacuum, Charging, Eye glass window, Light glass, CIP,SIP, Pressure gauge & safety valve.
- Temperature controller & safety pressure Valve.
- Bottom discharge with valve.

5.Water Phase Vessel

- Jacket for heating & cooling.
- Heating Jacket Pressure (4 bar).
- Heating by steam or hot water circulation.
- Propeller stirring with top mounting.
- Temperature controller & safety pressure Valve.
- Bottom discharge with valve.

6.Wax Phase Vessel

- Jacket for heating & cooling.
- Heating Jacket Pressure (4 bar).
- Heating by steam or hot water circulation.
- Propeller stirring with top mounting.
- Temperature controller & safety pressure Valve.
- Bottom discharge with valve.



7. Vacuum System

- Water Ring Vacuum Pump.
- Vacuum gauge & Vacuum relief valve.

8. Storage Vessel

- Skid type storage vessel.
- Bottom cone is Jacket for heating.

9. Inter Connecting Pipe

- Inter connecting Pipe line of all vessel for transfer Water, Wax & products.
- Recirculation in manufacturing vessels.
- Vacuum connecting pipe.

10. Working Platform

- Rigid structure with anti slipping embossed plat.
- Made from AISI 304.

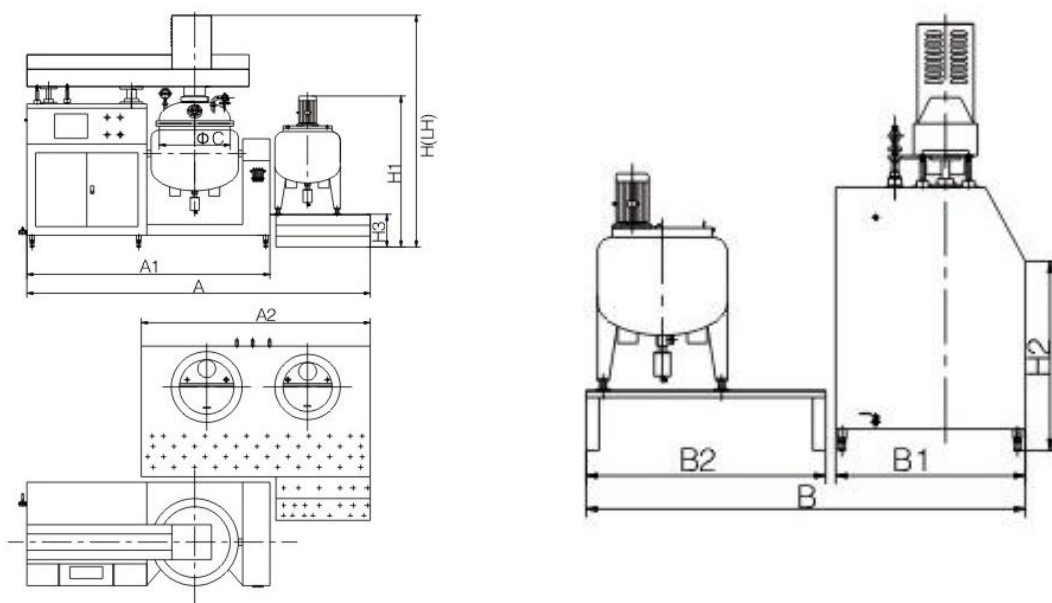
11. Controls & Visualization

- Electric Controls with digital display.
- Optional PLC Controls with HMI Touch screen.
- RPM and Process time entries.
- Temperature controls- Heat/cool.
- Vacuum start- Stop.
- Integrated Data Recording for batch.

12. Safety Features

- Emergency stop button
- Safety vacuum relief valve & Indicator Gauge.
- Safety Pressure Valve.
- Limit switch at top lid

Dimensions:



Technical Data	TFZRJ-50	TFZRJ-100	TFZRJ-200	TFZRJ-350	TFZRJ-500	
Total volume of homogenizing emulsifier (L)	70	140	260	450	650	
Working volume (L/Batch)	30-50	60-100	90-200	170-350	250-500	
Heating area of homogenizing emulsifier (m ²)	0.8(7.5Kw)	1 (12Kw)	1.2(15Kw)	1.6(18Kw)	2(24Kw)	
High speed motor (Kw)	3	4	4	5.5	7.5	
Rotation speed (r/min)	1000-4000					
Frame type scraper motor (Kw)	0.75	1.5	1.5	2.2	3.7	
Rotation speed(r/min)	20-60					
Folding paddle type motor(Kw) (Option)	0.37	0.75	0.75	1.5	1.5	
Rotation speed(r/min)	30-85					
Turning motor of emulsifier(Kw) (Option)	0.35	0.35	0.35	0.55	0.55	
Hydraulic motor(Kw)	1.5					
Total volume of oil tank(L)	30	60	100	350	260	
Mixing motor of oil tank(Kw)	0.75	0.75	1.1	1.5	2.2	
Heating area of oil tank(m ²)	0.6(4.5Kw)	0.8(9Kw)	1(12Kw)	1.2(15Kw)	1.4(18Kw)	
Total volume of water tank(L)	45	85	160	300	390	
Mixing motor of water tank(Kw)	0.75	0.75	1.1	1.5	2.2	
Heating area of water tank(m ²)	0.6(4.5Kw)	0.8(9Kw)	1(12Kw)	1.2(15Kw)	1.4(18Kw)	
Water loop vacuum pump(Kw)	0.85	1.45	2.35	2.35	3.85	
Total power steam(electric heating)(Kw)	8.5(25)	10.5(40.5)	13(52)	17(65)	23(83)	
Vessel type	Please specify it if you need the pressure certificate.					
Working pressure in the jacket(Mpa)	0.25	0.25	0.25	0.25	0.25	
Working pressure in the inner tank(Mpa)	≤0.09	≤0.09	≤0.09	≤0.09	≤0.09	
Compressed air pressure(Mpa)	0.6-0.7	0.6-0.7	0.6-0.7	0.6-0.7	0.6-0.7	
Compressed air consumption (m ³ /lot)	0.1	0.16	0.28	0.39	0.39	
Steam consumption (kg/h)	110	140	170	230	290	
Tap water consumption in the jacket (m ³ /lot)	0.5	0.7	1.0	1.5	2.0	
Pure water consumption for cleaning(m ³ /lot)	0.25	0.3	0.5	0.7	1.1	
Outline dimensions	A	2750	3100	3500	3780	3850
	B	2100	2150	2450	2600	2800
	H	1900	2100	2250	2560	2700
	LH	2650	2800	3150	3610	3950
	A1	2030	2250	2450	900	2950
	A2	1700	2100	2400	2730	2550
	B1	900	950	1050	1150	1250
	B2	1050	1200	1400	1450	1650
H1	900	1500	1600	1750	2100	

Vacuum Emulsifying Mixer



TFZRJ-750

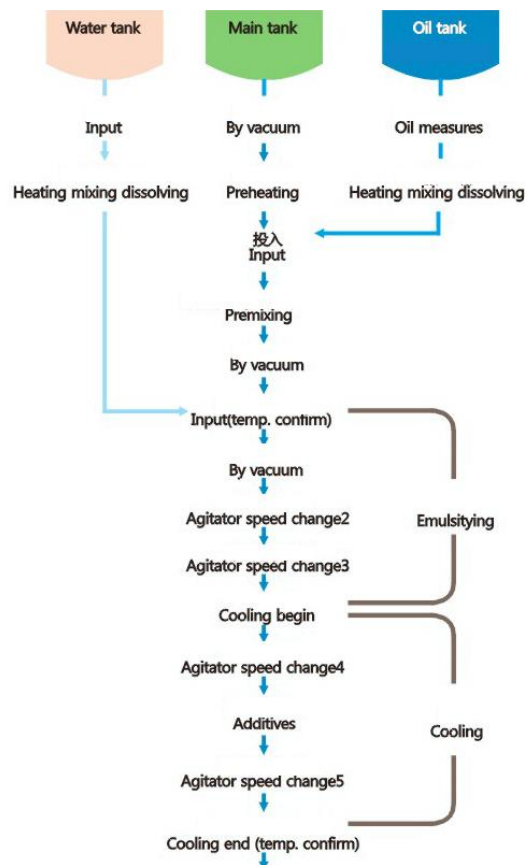
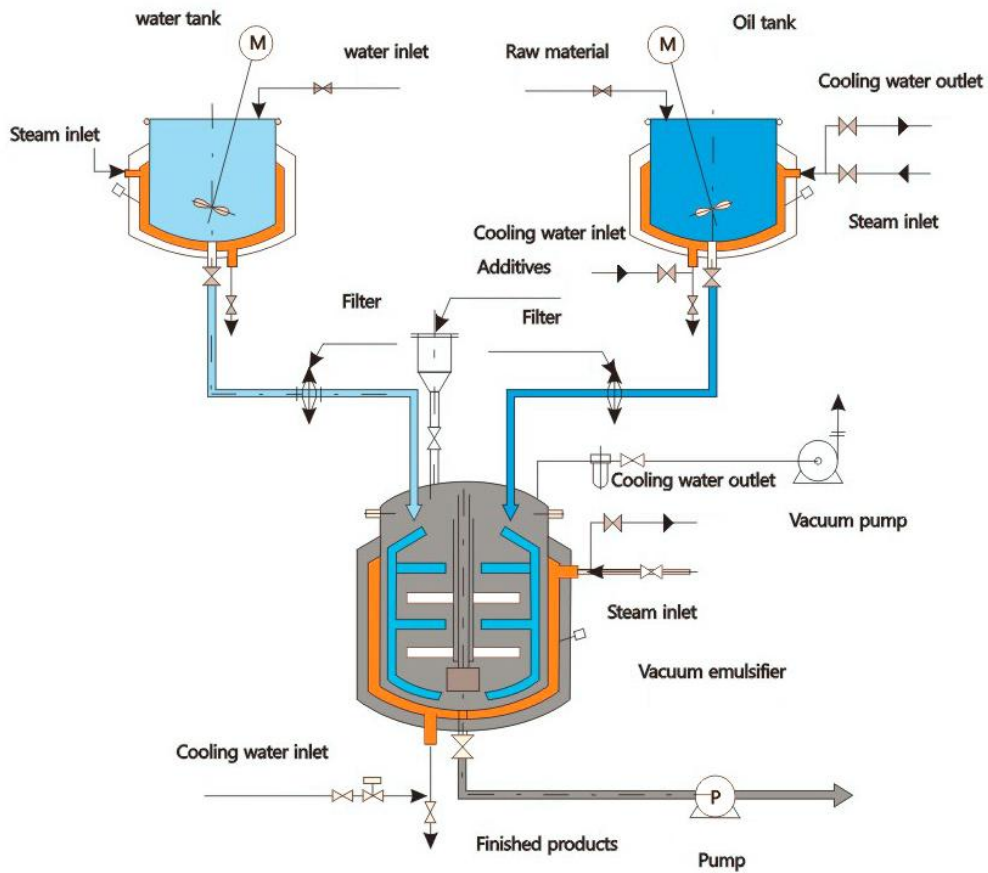
TFZRJ-1000

TFZRJ-1500

TFZRJ-2000

Technical Data		TFZRJ-750	TFZRJ-1000	TFZRJ-1500	TFZRJ-2000
Total volume of homogenizing emulsifier (L)		950	1200	1750	2300
Working volume (L/Batch)		350-750	600-1000	750-1500	1000-2000
Heating area of homogenizing emulsifier (m ²)		2.6	3.2	3.8	4.5
High speed motor (Kw)		11	15	15	20
Rotation speed (r/min)		1000-3600			
Frame type scraper motor (Kw)		3.7	3.7	5.5	5.5
Rotation speed(r/min)		20-60			
Folding paddle type motor(Kw)		1.5	1.5	1.5	2.2
(Option)					
Rotation speed(r/min)		30-80			
Turning motor of emulsifier(Kw)(Option)		0.55	0.55	0.75	0.75
Hydraulic motor(Kw)		3.7			
Total volume of oil tank(L)		380	480	700	950
Mixing motor of oil tank(Kw)		2.2	3.7	3.7	5.5
Heating area of oil tank(m ²)		1.8	2.2	2.8	3.4
Total volume of water tank(L)		560	720	1050	1350
Mixing motor of water tank(Kw)		2.2	3.7	3.7	5.5
Heating area of water tank(m ²)		2.0	2.5	3.1	3.8
Water loop vacuum pump(Kw)		4(2BV5110)	4(2BV5110)	5.5(2BV5111)	5.5(2BV5111)
Total power steam(electric heating)(Kw)		29	36	40	49
Vessel type		Please specify it if you need the pressure certificate.			
Working pressure in the jacket(Mpa)		0.25	0.25	0.25	0.25
Working pressure in the inner tank(Mpa)		≤0.09	≤0.09	≤0.09	≤0.09
Compressed air pressure(Mpa)		0.6-0.7	0.6-0.7	0.6-0.7	0.6-0.7
Compressed air consumption (m ³ /lot)		2.8	3.5	4.0	5.0
Steam consumption (kg/h)		380	450	580	670
Tap water consumption in the jacket (m ³ /lot)		2.5	3	4.5	5.6
Pure water consumption for cleaning(m ³ /lot)		1.6	2.0	3.2	4.1
Outline dimensions	A	4600	4750	4900	5000
	B	3000	3200	3600	3800
	H	3200	3350	3550	3600
	LH	4500	4750	5150	5300
	A1	3100	3300	3500	3600
	A2	3200	3400	3600	3700
	B1	1400	1500	1700	1800
	B2	1600	1700	1900	2000
	H1	2200	2300	2400	2450

Vacuum Emulsification Blende:



SaintyCo also offer:

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